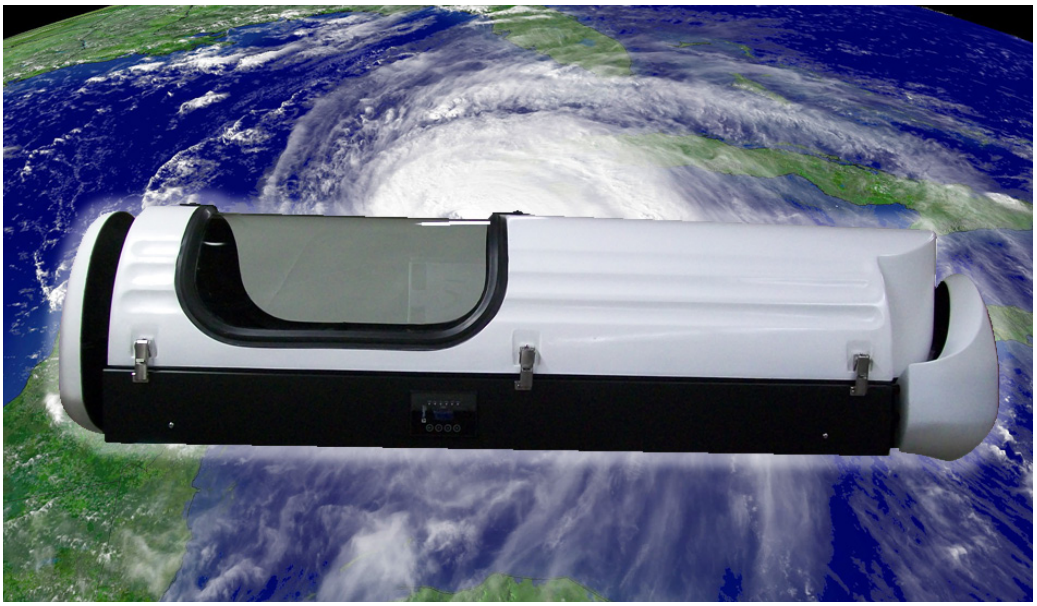
TEMPEST
lighting inc.

Hurricane Moving Light Enclosures

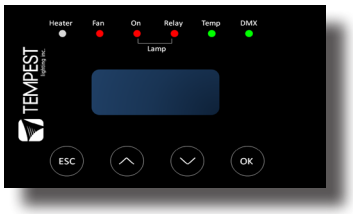


It's Hurricane Season again, and the new Hurricanes are here – ready for the new generation of high-power moving mirror lights, and featuring Tempest's revolutionary DEC3™ control system. Hurricane protects your scanner anywhere, in any weather.

Hurricane 1000 protects moving mirror scanners up to 2000 Watts from rain, snow, ice and humidity. Tempest's patented control system makes sure your light is never too hot, never too cold, and never, ever allows deadly condensation to form.

Tempest's DEC3.2™ control system — all the security and reliability of Digital Enclosure Control generations 1 and 2, but now featuring DMX control, user-definable temperature and humidity settings, and a nifty new control panel, so you know exactly what's going on inside every enclosure.

Best of all, DEC3.2 is shipping now with optional RDM remote monitoring, so you know exactly what's going on — without climbing a ladder. DEC3 even features a lamp hour counter, so you know when to relamp — before the lights go out...



The DEC3.2 User Control Panel features weatherproof Cmessage display window and six status LEDs. All status information is also available over RDM.

Hurricane enclosures comprise a stylish and corrosion-proof fiberglass body, mounted on a sturdy aluminum base, containing Tempest's patented Digital Enclosure Control electronics, fans and heating elements. Weatherproof air inlet and exhaust cowls allow the passage of large amounts of filtered air to pass over the luminaire when the lamp is on, and a tempered glass projection window assures distortion-free projection, at any mirror angle.

By monitoring the interior temperature and humidity of the enclosure, DEC3 controls humidity and dew point, eliminating condensation and corrosion, 24/7. When the fixture is running, Hurricane's powerful fans exchange the air inside the enclosure every 2-3 seconds, ensuring long lamp and equipment life.

Hurricane has been tested and approved for all 1200W and the new Cyber 2.0 moving head luminaires.

Tempest Lighting Hurricane enclosures have been operating for over 10 years in deserts, through winters, and at sea, all over the world.

Now it's your turn.

Construction

Exterior grade fiberglass, powder coated aluminum and stainless steel. Tempered glass optically clear wraparound projection window. Stainless steel hardware.

For Luminaire Type:

These fixtures have been tested and approved with this enclosure – call us for fixtures not on this list.

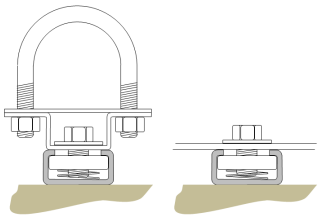
Clay Paky Golden Scan (1 - 4)
High End Cyber 2.0
And similar luminaires...

Mounting Hardware (optional)

Two parallel 1 5/8" x 13/16" Unistrut. Use standard Unistrut hardware, or order any of the mounting kits below. Tempest uses and recommends only stainless steel mounting hardware.

4900.MC *Stainless Steel pipe clamp kit, for pipes 1.5" (38mm) to 2" (50mm) OD. Four required per enclosure.*

4925.MC *Stainless Steel pipe clamp kit, for pipes 2" (50mm) to 2.5"/64mm OD. Four required per enclosure.*



4900.MB *Stainless Steel Bolt Kit, for attachment to a (user supplied) mounting plate up to 1/4"/6mm thick.*

Tempest Lighting, Inc. accepts no responsibility whatsoever for damages arising from deficient mounting design or installation by others.

Security

3 Heavy-Duty stainless steel key draw latches, with padlock eyes for extra security. Padlocks are not included with the Hurricane enclosure and should be supplied locally.

Orientation

Base up, Base Down, Horizontal or vertical, subject to any limitations stipulated by luminaire manufacturer.

Finish

Fiberglass covers, standard white enamel. Base, exterior grade epoxy powder coat, black. Custom colors available to special order. All RAL colors and most Pantone colors can be matched as required.

Climate Control

Patented Digital Enclosure Control (DEC3) System, microprocessor controller and display controls temperature, humidity and dewpoint. DEC3 system runs 24/7 for round-the-clock protection.
Factory default settings may be used without any adjustment, or user may modify temperature and humidity threshold settings to optimize performance in different climate types and with different equipment.
All values and status information are available for remote monitoring over RDM (for more information, please refer to the Hurricane 2 User Manual, available at www.tempestlighting.com).

Cooling

Filtered fresh air cooled using two powerful AC fans. Washable air inlet filter may be simply removed for periodic cleaning.

Heating

Proportionally controlled 500 watt heater dries intake air and maintains internal temperature within bounds in cold climates. Heaters pulse when fixture lamp is detected to be off, to maintain internal temperatures above dewpoint and prevent condensation.

Protection

Fixture over-temperature double pole relay isolates luminaire if temperature exceeds safe operating limit. This relay may also be controlled over DMX, providing a simple 'hard reset' in the event of fixture malfunction.

Control Wiring

DMX IN terminal on main circuit board. Two DMX THRU terminals - one for internal fixture, and one to next enclosure. Cable by others.

Electrical Connections

Connections landed through conduit entry port provided on enclosure base.
Enclosure – hardwired on site, 200-240VAC, 50/60Hz, 5amps (max)
Light Fixture: Americas: NEMA L6-20 receptacle provided
Asia/Europe: CE17 16amp receptacle provided

Digital Enclosure Control?

DEC3.2™ – that's Digital Enclosure Control, 3rd Generation – takes enclosure control to the next level. DEC3.2 is a an entirely new controller, featuring high-reliability surface-mount electronics, extreme heavy-duty switching components, and a handy waterproof user control panel on the outside of the enclosure. DEC3.2 offers communication via DMX and RDM, or may be used in its entirely automatic standalone operating mode. DEC3.2 monitors internal temperature, humidity and lamp current at all times, and uses this information to control its lamp relay, fans and heaters, and report back over RDM if desired.

DEC3.2 works right out of the box – if you don't want to play with its default settings, you don't need to. DEC3.2's mission is to maintain temperature and humidity inside the enclosure within the 'Goldilocks' band – never to hot, never too cold, and never, never, allowing deadly condensation to form. Condensation is fatal to electronic equipment, particularly in polluted areas or saline environments, where condensation brings not only rust and short-circuits, but also a steady buildup of mineral and salt deposits. Incidentally, this is very hard to control with air-conditioning type systems, which is why we don't use them.

DEC3.2's function depends on whether the fixture/projector lamp is on or off:

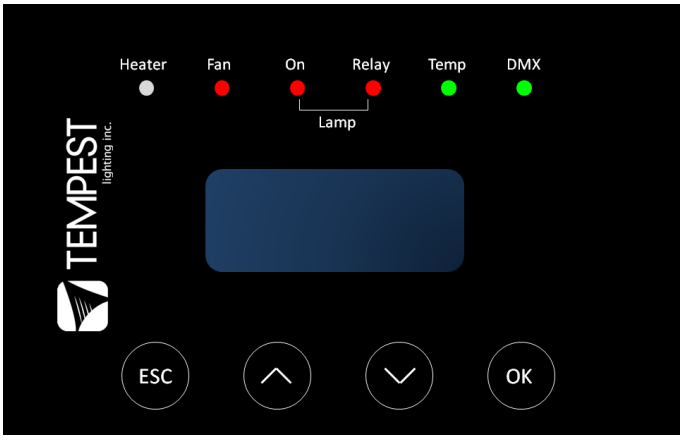
Lamp ON

When the projector/fixture is running, the heat from the lamp takes care of humidity, and DEC3.2 runs the enclosure's fans to change its air every few seconds – ensuring minimal temperature rise above outside ambient.

Lamp OFF

When the lamp is off, DEC3.2 goes to work. When conditions are within normal bounds, DEC 3 pulses the heater at a low level to prevent condensation, and gently changes the enclosure air every 30 seconds or so. We call this 'pulse mode', and it is the key to preventing damaging condensation inside your equipment.

If the temperature rises above the top set limit, DEC3.2 runs the fans to cool it down. In cold conditions, DEC3.2 will run the heater as required to maintain the bottom set temperature.



DEC3.2's user interface uses CapSense™ technology for a watertight control panel that's easy to use and easy to read.

LED indicators show the status of all major functions, and the display shows DMX address, temperature, humidity and any error messages you need to know about.

Use the simple menus to optimize temperature and humidity settings, set DMX address, view and reset lamp hour counter, and more.

And if you need to step back from the Hurricane enclosure, all of this is available over RDM, in your control room, or over the internet.

And while doing all of this, DEC3.2 can tell you what's happening over your RDM network – a real boon in larger installations.

Operating Modes

Standalone: The enclosure operates independently, and automatically, requiring no user intervention. User may set parameters such as temperature and humidity thresholds, and monitor sensor information and DEC status at the DEC3.2 user interface. Standalone is the default DEC3.2 setup mode unless specified otherwise.

DMX: All of the Standalone features, but the user can override the lamp relay over DMX, to force a hard reset of any moving light that loses its mind!

RDM: As above, plus the ability to discover and monitor DEC3.2 over RDM.

DEC is why, again and again, users around the world have chosen Tempest enclosures to protect their investment in Lighting and projection equipment.

Tempest Lighting and DEC3.2 – A combination that keeps you looking good, and saves you money.

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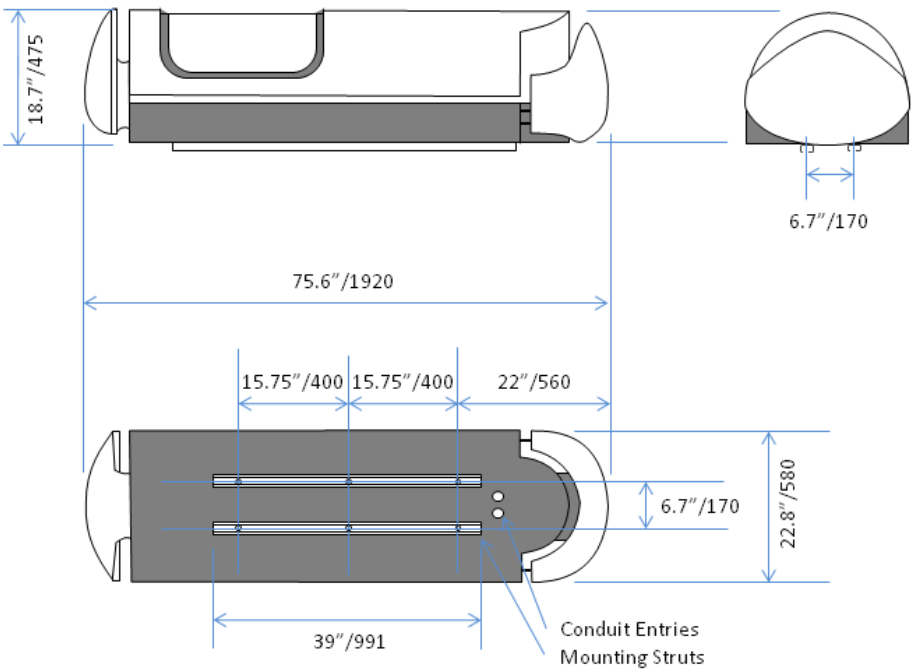
Ordering Information

The following information must be provided with each order:

- Luminaire type, model number and lamp power
- Orientation (base-down, base-up, or other angle)
- Custom Colors - provide RAL or Pantone reference
- **.US** style (NEMA 6-20 receptacle) or **.IN**ternational (CE17 16amp (blue) receptacle)

1000.IN	Hurricane 1000, 230VAC, CE17 Luminaire Receptacle
1000.US	Hurricane 1000, 208-240VAC, L6-20 Fixture Receptacle
0000.RD	RDM Monitoring Functionality
4900.MB	Mounting Bolt Kit, 1/2" thread (4 required per enclosure)
4900.MM	Mounting Bolt Kit, M12 thread (4 required per enclosure)
4900.MC	Truss/Pipe Mounting Clamp Kit (4 required per enclosure)

Dimensions & Weights



Weight: 86lb/39kg

Shipping Weights/Dims.

(Palletized Carton)

80"x24"x26" (h), weight 150lb - 1203 x 61 x 66cm, 68kg

Schedule B Export Code: 8536.30.0000

Approvals

Designed to UL Standard 50, 508

CE: EN55015, EN61000-3-4, EN61000-3-5, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN60598-1

NEMA Type 3R Enclosure (approximately equivalent to IP54)

This product is protected by US Patent Number 6,352,358.

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